### UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

ARCADIA BIOSCIENCES, INC.,

Plaintiff,

VS.

VILMORIN & CIE, LIMAGRAIN CEREALES INGREDIENTS SA, and ARISTA CEREAL TECHNOLOGIES PTY LIMITED,

Defendants.

CIVIL ACTION NO.: 18-cv-8059

**COMPLAINT** 

**JURY TRIAL DEMANDED** 

Plaintiff Arcadia Biosciences, Inc. ("Arcadia" or "Plaintiff"), by its undersigned counsel, by and for its Complaint against Defendants Vilmorin & Cie ("Vilmorin"), Limagrain Céréales Ingrédients SA ("Limagrain"), and Arista Cereal Technologies Pty Limited ("Arista" and together with Vilmorin and Limagrain, "Defendants"), alleges as follows:

#### INTRODUCTION

1. This action asserts claims for correction of inventorship (Count I), breach of contract (Count II), breach of the implied covenant of good faith and fair dealing (Count III), unfair competition (Count IV), misappropriation of Confidential Information (Count V), unjust enrichment (Count VI), conversion (Count VII), and tortious interference (Count VIII), based on Defendants' misappropriation and misuse of an invention conceived and reduced to practice by Arcadia scientists and that is owned by Arcadia, which conduct by Defendants was in breach of their contractual obligations and violated common and statutory law.

#### THE PARTIES

2. Arcadia is a corporation organized and existing under the laws of the State of Delaware, with an office for the transaction of business at 202 Cousteau Place, Suite 105, Davis,

CA 95618. Arcadia's business is the development of agricultural products, including crops with enhanced productivity and quality traits.

- 3. Vilmorin is, upon information and belief, a company organized and existing under the laws of France, having its principal office at 4 quai de la Mégisserie, F-75001 Paris, France.
- 4. Limagrain is, upon information and belief, a company organized and existing under the laws of France, having its principal office at Zone Argo Industrielle, 63720 Saint-Ignat, France. Limagrain is an affiliate of Vilmorin because it, directly or indirectly, controls, is controlled by, and/or is under common control with Vilmorin. Specifically, Vilmorin is, upon information and belief, a wholly-owned direct or indirect subsidiary of Groupe Limagrain Holding SA ("Groupe Limagrain") and manages the seed research and development business operation of the Groupe Limagrain, of which Vilmorin and Limagrain are a part.
- 5. Arista is, upon information and belief, a joint venture that was formed in 2006 between (i) Commonwealth Scientific and Industrial Research Organization ("CSIRO"), an Australian government research agency, (ii) Grains Research and Development Corporation ("GRDC"), an Australian corporate government and Commonwealth entity, and (iii) Limagrain, with its correspondence address at Clunies Ross Street, Black Mountain Laboratories, Black Mountain ACT 2601, Australia.
- 6. Upon information and belief, GRDC sold its shares in Arista, the sale being completed in 2016-2017. Upon information and belief, as of the date of this Complaint, only CSIRO and Limagrain have ownership interest in Arista, and Limagrain has a controlling interest in Arista.
- 7. Arista is an affiliate of Vilmorin because it is directly or indirectly controlled by and/or is under common control with Vilmorin. Specifically, upon information and belief, under

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the joint venture structure for Arista, Limagrain has a sufficient ownership and/or equity interest in Arista to control, either directly or indirectly, the activities of Arista based on its controlling and/or equity interest in Arista.

8. Further, in Limagrain's communications with Arcadia, Limagrain has represented that it has the power to control the activities of Arista, further confirming that Arista is, directly or indirectly, an affiliate of Vilmorin.

#### **JURISDICTION AND VENUE**

- 9. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338 (a) & (b), and 1367(a) in that this is a civil action arising under the patent laws of the United States and common and statutory claims that arise from the same operative facts and form part of the same case or controversy.
- 10. The Court has personal jurisdiction over Defendants because Defendants expressly consented to the jurisdiction of the courts located in the State of New York in Section 7 of a November 13, 2009 Confidentiality and Nondisclosure Agreement between Arcadia and Vilmorin (the "NDA Agreement"), which is binding on Limagrain and Arista as affiliates of Vilmorin, as provided in Section 3.5 of the NDA Agreement, and as authorized by New York law, including Sections 5-1401 and 5-1402 of New York's General Obligations Law.
- 11. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391(b)(3) and 1400 and as authorized by New York law, including Sections 5-1401 and 5-1402 of New York's General Obligations Law, in that Defendants are subject to personal jurisdiction in this District, Defendants consented to proper venue in any state or federal court located in the State of New York in Section 7 of the NDA Agreement, the controversy between the parties exceeds

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\$1,000,000 in value, and the NDA Agreement relates to obligations concerning transactions and technologies involving and valued in excess of \$1,000,000.

#### **FACTS**

# **Summary of Dispute**

- 12. Starting in 2006, Arcadia scientists began research and development work on a high amylose wheat technology, and conceived and reduced to practice the invention at issue in the action by no later than November 13, 2009. On November 13, 2009, Arcadia entered into the NDA Agreement with Vilmorin pursuant to a desire of Arcadia and Vilmorin to discuss potential joint technology development and business opportunities. Under the protections of and within the scope of the NDA Agreement, Arcadia shared technical details on its high amylose wheat technology with Defendants. Rather than pursue the contemplated joint development and business opportunities under discussion, Defendants instead decided to misappropriate the technologies developed by Arcadia and claim them as their own.
- 13. On November 2, 2012, Defendant Arista, an affiliate of Vilmorin and Limagrain, filed U.S. Patent Application Serial No. 13/668,177 (the "'177 Application"), which issued as U.S. Patent No. 9,357,722 B2 to Regina et al., entitled "High Amylose Wheat-II," on June 7, 2016 (the "'722 Patent"). On November 4, 2011, the inventors, including an inventor employed by an affiliate of Defendants, filed U.S. Patent Application Serial No. 13/289,884 (the "'884 Application"), which was assigned to Arista and which issued as U.S. Patent No. 9,060,533 B2 to Regina et al., entitled "High Amylose Wheat," on June 23, 2015 (the "'533 Patent"). On August 6, 2013, Arista, an affiliate of Vilmorin and Limagrain, filed U.S. Patent Application Serial No. 13/883,456 (the "'456 Application"), which issued as U.S. Patent No. 9,585,413 B2 to Regina et al., entitled "Food Ingredients Produced from High Amylose Wheat," on March 7,

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2017 (the "'413 Patent"). The '722 Patent, the '533 Patent, and the '413 Patent, all of which have been assigned to Arista (collectively, the "Arista Patents") claim technologies (or at least inventive aspects of technologies) first conceived and reduced to practice by Arcadia, and that were communicated to Defendants under the protections of the NDA Agreement. According to the U.S. Patent and Trademark Office records, Arista is the owner of the entire right, title, and interest in and to the Arista Patents.

14. Defendants decided to misappropriate Arcadia's technologies for their own commercial benefit. Defendants have been misrepresenting themselves to the world as owners of this technology, undermining Arcadia's goodwill, reputation, brand, and damaging Arcadia's ability to pursue commercial exploitation of its technology. Arcadia seeks correction of the inventorship of the Arista Patents and also brings claims for breach of contract, breach of the implied covenant of good faith and fair dealing, unfair competition, misappropriation of Confidential Information, unjust enrichment, conversion, and tortious interference against Defendants relating to some or all of the subject matter of the Arista Patents, as set forth below.

### **Background Of The Technology**

#### A. Wheat Grain or Seed

- 15. A wheat plant produces a seed that is commonly known as a wheat grain. One commercially important species of wheat plant is common bread wheat, which has the scientific name *Triticum aestivum*. Wheat grain harvested from this species of wheat plant can be processed—or milled—to form bread flour, which is widely used for making bread, and flour-based bakery products.
  - 16. The basic anatomy of a wheat grain is illustrated in Figure 1, as follows.

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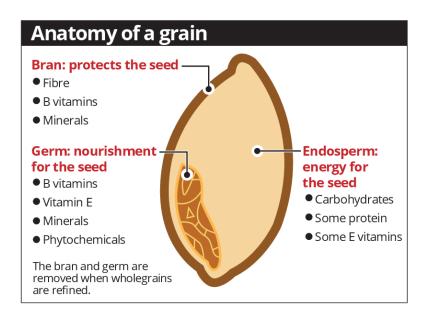


Figure 1. Anatomy of a Wheat Grain (In Cross Section)

Image from Z.A.M. Daud, "Get the 'Whole' Grain," March 27, 2016, published on Star2.com.

As illustrated, there are three main components of a wheat grain: (i) bran, which is a coating around the seed that serves to protect the seed; (ii) germ, which contains the embryo, or the living part of the seed that becomes a new plant, and which also provides nourishment for the embryo; and (iii) endosperm, which provides energy for the embryo when it begins to grow.

- 17. As can be seen in Figure 1 above, the endosperm makes up most of the wheat grain. The endosperm is a starchy storage tissue that constitutes roughly 70-80% by weight of the wheat grain. The majority of the endosperm is starch (~70-80%) and much of the remainder of the endosperm is protein (10-20%). Starch and protein provide critical nutrition for the embryo when it begins to grow (*i.e.*, when germination starts).
- 18. In addition to serving as a nutritive source for the embryo, the endosperm is a valuable nutritive source for those that consume wheat grain, including humans. Thus, variation in starch or storage protein type or abundance in the endosperm of wheat grain has a large impact

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upon the nutritional properties of the wheat grain. When the grain is used for human consumption, these nutritional properties contribute positively to the quality of the milled grain or wheat flour.

- 19. Wheat is a staple of the human diet and is incorporated into many food products, including bread, cereals, pizza, and pasta. With the rise in human health concerns such as obesity and diabetes, there has been an increasing interest in altering starch composition in cereal grains, such as wheat.
- 20. Amylose is one of two components of starch present in the endosperm of wheat grain. The other component is amylopectin. Amylose is present in the endosperm in a typical amount of about 25% of total starch on a weight/weight ("w/w") basis, while amylopectin is present in the endosperm in a typical amount of about 75% w/w of total starch. Amylopectin is formed of highly branched chains of glucose, whereas amylose is formed of long, mostly unbranched chains of glucose. Amylose can form complexes that when consumed are digested more slowly than amylopectin. Thus, increased amylose is associated with increased *resistant starch*, or a starch that is not digested in the small intestine of healthy individuals, but is instead fermented in the large intestine.
- 21. Due to its slow digestion, resistant starch does not have the same caloric load as readily digestible starch, nor does it cause as rapid a rise in blood glucose levels after ingestion. Instead, consumption of resistant starch involves a more controlled glucose release over a longer period of time after digestion. This results in a decreased glycemic response, increased insulin sensitivity, and greater feelings of satiety. Thus, as a form of dietary fiber, resistant starch contributes to better human colon health due to its fermentation by probiotic organisms in the lower gastrointestinal tract into short chain fatty acids. The amount of amylose in wheat grain

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positively correlates with the level of resistant starch in the wheat grain. Since wheat products account for 50% of the resistant starch consumed in the United States, increasing the amount of resistant starch (*i.e.*, amylose) in wheat grain could have tremendous human health benefits.

- 22. One way of increasing amylose content in wheat grain is to alter enzymes in the wheat grain that are responsible for the production of amylopectin. Critical enzymes responsible for the production of amylopectin include starch branching and debranching enzymes, along with various starch synthases. In bread wheat, simultaneous reduction of *both* Starch Branching Enzyme IIs (SBEIIa and SBEIIb) has been accomplished by transgenic methods.
- 23. Although it is possible to produce foods derived from transgenic plants, human consumers consider foods made from transgenic plants to be less desirable than foods made from *non*-transgenic plants. Thus, there is great interest in developing high amylose wheat by *non*-transgenic methods. To do this, Arcadia scientists, based on the genetics of bread wheat, have used traditional plant breeding techniques to introduce mutations into wheat plants that would disrupt the normal activity of enzymes involved in the production of high amounts of amylopectin.

#### **B.** The Basics of Genetics

24. A plant's genetic information is contained in its cells. The genetic information of a plant cell is made up of molecules of deoxyribonucleic acid ("DNA") within the cell's nucleus. DNA is composed of four different deoxyribonucleotide subunits, generally referred to by the names of the bases attached to them: adenine (A), guanine (G), cytosine (C), and thymine (T). The nucleotide subunits of DNA are attached to each other to form two strands wound into a double helix. The two strands are held together by hydrogen bonding between specific base

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pairs: thymine (T) will pair only with adenine (A), and cytosine (C) will pair only with guanine (G).

- 25. A mutation is a heritable change in the nucleotide sequence of a cell's DNA. The change may be as small as a single nucleotide substitution, replacing A, G, C, or T with a different nucleotide, or as large as the addition, deletion, or rearrangement of one, several, hundreds, thousands, or millions of nucleotides. Since DNA is the substance that mutates, mutations are faithfully replicated—from one cell generation to the next and from one plant generation to the next. Mutations in a region of DNA that encodes "messenger RNA" or "mRNA" (the segment of nucleotides that is translated into a protein) are transcribed into mRNA and may alter the amino acid sequence of the protein encoded by the gene.
- 26. A point mutation typically refers to alterations affecting single nucleotide base pairs in the DNA. For this reason, a point mutation usually affects only one gene.
- 27. Mutations can arise spontaneously as a natural process, or they may be induced. Spontaneous mutations are caused by errors in DNA replication or natural chemical reactions in DNA. Induced mutations are caused by external agents that chemically alter DNA, usually causing increased frequency of replication errors or some form of DNA damage. Scientists sometimes induce mutations intentionally to create genetic variation.
- 28. Each unique gene sequence is referred to as an allele of that gene. Wild-type alleles are the versions of a gene found most often in nature. In most cases, wild-type alleles produce a functional protein product. Mutant alleles arise by mutagenesis of a wild-type allele and can have effects ranging from no effect to reducing or eliminating function, or even causing a different function, of the encoded protein.

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29. The effect that a mutation has on gene function depends on the type of mutation and where in the gene the DNA mutates. Among the possible effects, a mutation may be silent (*i.e.*, produce no change in the amino acid sequence) or it may cause an alteration in the amino acid sequence of a gene's product. The effect of alteration in amino acid sequence on protein function depends on several factors including which amino acids in the polypeptide chain are altered, how many amino acids are altered, and what specific changes in amino acid sequence arise from the mutation. For example, a single base pair substitution may result in the expression of a full-length protein with altered function. It may also result in a premature stop codon that usually results in the lack of protein expression. In another example, mutations at the junction between exons and introns (splice site mutations) can disrupt RNA splicing and frequently result in out of frame translation (leading to an altered amino acid sequence) and premature stop codons. Typically, mRNA transcripts that contain a premature stop codon are eliminated by nonsense-mediated mRNA decay.

#### C. Basic Genetics of Bread Wheat

30. Bread wheat, like many other plant species, has a *polyploid* genetic structure. Polyploid organisms have more than one complete chromosome set in their somatic cells (instead of the one chromosome set that a diploid organism has). Bread wheat has a complicated genetic structure of *three* complete chromosome sets (each set having two pairs of homologous chromosomes), which is referred to as a *hexaploid*. This means that bread wheat contains three separate complete sets of chromosomes, each of which has seven sets of chromosome pairs. One complete set of chromosome pairs is referred to as a *genome*. The three distinct (but very similar) genomes of bread wheat are referred to as the A, B, and D genomes.

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31. **Figure 6** below is a simplified illustration of the complete complement of genetic information in bread wheat, including the A, B, and D genomes, each with seven sets of chromosome pairs.

Figure 6. Illustration of the 21 Chromosome Pairs in Bread Wheat

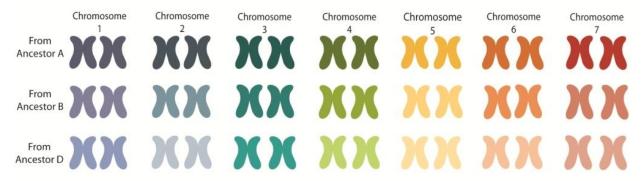


Image from Colorado Wheat, "Why is the Wheat Genome So Complicated?" November 15, 2013 (http://coloradowheat.org/2013/11/why-is-the-wheat-genome-so-complicated/).

#### D. The SBEIIa Gene of Bread Wheat

- 32. Since the three bread wheat genomes (A, B, and D) are very similar, a gene in each of the chromosome pairs of one genome (*e.g.*, the A genome) typically has corresponding genes in each of the chromosome pairs of the other two genomes (*i.e.*, the B genome and the D genome). Thus, for example, there are a total of three *SBEIIa* genes in bread wheat (*SBEIIa*-A, *SBEIIa*-B, and *SBEIIa*-D), each having two homologous copies of the gene, for a total of six copies. The nomenclature used to refer to the *SBEIIa* genes in the three different bread genomes is *SBEIIa*-A, *SBEIIa*-B, and *SBEIIa*-D.
- 33. In bread wheat, the protein product of the *SBEIIa* gene, which is known as the SBEIIa protein, is an enzyme that actively modifies chains of glucose to make the formation of amylopectin possible. Thus, combinations of mutations in the *SBEIIa* genes in wheat grain that each reduce or eliminate the activity of SBEIIa protein result in increased levels of amylose in the wheat grain.

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34. Since each of the wild-type *SBEIIa*-A, *SBEIIa*-B, and *SBEIIa*-D genes produces SBEIIa protein, it is desirable to mutate each of these genes to prevent each of them from producing functional SBEIIa protein. In the absence of functional SBEIIa protein, less amylopectin is made in the grain's endosperm, resulting in a higher amount of amylose.

## **Arcadia's Development Of The Technology In Dispute**

35. By no later than April 13, 2007, Arcadia scientists including at least Ann J. Slade, Ph.D. (the "Arcadia Scientists"), conceived of obtaining wheat plants and wheat grain with homozygous null and/or loss of function mutations in all three SBEIIa genes, where at least one of these mutations is a point mutation and where the wheat grain is viable. For example, the Arcadia Scientists conceived of wheat grain including, but not limited to, wheat grain (*Triticum* aestivum) comprising an embryo and starch, where the embryo comprises two identical null alleles of an SBEIIa-A gene, two identical null alleles of an SBEIIa-B gene and two identical null alleles of an SBEIIa-D gene, where at least one of the two identical null alleles of the SBEIIa-A gene, or of the SBEIIa-B gene or of the SBEIIa-D gene are point mutations, where SBEIIa protein is undetectable in the wheat grain, and where (a) the starch comprises amylose such that the grain has an amylose content of between 50% and 90% (w/w) as a proportion of the extractable starch of the grain; and (b) the wheat grain germinates. The Arcadia Scientists also conceived of a process for producing a milled product comprising the steps of (i) obtaining the above wheat grain and (ii) milling the grain, thereby producing the milled product. (The above is collectively referred to herein as the "Arcadia Invention"). An excerpt of a witnessed laboratory notebook issued to Ann J. Slade, Ph.D. providing a quarterly report evidencing this conception is attached as Exhibit A.

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- 36. By November 13, 2009, the Arcadia Scientists achieved a corroborated reduction to practice of the Arcadia Invention. A reducted excerpt of a witnessed laboratory notebook issued to Ann J. Slade, Ph.D., evidencing that reduction to practice is attached as **Exhibit B**.
- 37. The Arcadia Invention was developed independently by the Arcadia Scientists with no input or involvement from Defendants.
- 38. The Arcadia Invention was developed independently by the Arcadia Scientists before there was any exchange of technical or scientific information on the Arcadia Invention between Arcadia and Defendants.

#### The NDA Agreement

- 39. Vilmorin is a French company that is involved, either directly or indirectly through its affiliates in, among other things, researching, developing, and breeding plants.
- 40. Vilmorin, either directly or indirectly through its affiliates, has worked with Arcadia on various projects involving, among other things, researching and developing genetically modified plants and, for a period of time, was an equity owner in Arcadia, which equity ownership has been relinquished.
- 41. In connection with potential business and technical discussions between Vilmorin and Arcadia, on November 13, 2009, the parties entered into the NDA Agreement.
- 42. Recital C of the NDA Agreement broadly describes the "Purpose" of the NDA Agreement as discussions regarding a business relationship between the parties, including technical and business issues.
- 43. Section 1.1 of the NDA Agreement broadly defines "Affiliate" as any existing or future entity controlled by, controlling, or under common control with a party, directly or indirectly.

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- 44. Section 1.3 of the NDA Agreement broadly defines "Confidential Information" to include, without limitation, technical and scientific information provided by Arcadia under the NDA Agreement.
- 45. Section 3.1 of the NDA Agreement sets forth prohibitions on use or disclosure of Confidential Information provided under the NDA Agreement in connection with any activity other than the "Purpose" as defined in the NDA Agreement.
- 46. Section 3.5 of the NDA Agreement provides that the NDA Agreement is fully binding on "Affiliates" of Vilmorin, which includes Limagrain and Arista.
- 47. Section 7 of the NDA Agreement confirms the consent of Vilmorin, Arcadia, and their "Affiliates" to jurisdiction in the State of New York and New York choice of law for any claims relating to or arising from the NDA Agreement.
- 48. The NDA Agreement relates to and governs transactions, technologies, and business activities between the parties involving and valued at many millions of dollars.

# Arcadia's Communication Of The Arcadia Invention To Vilmorin And Its Affiliates Under The NDA Agreement

49. After execution of the NDA Agreement, Vilmorin and its affiliates (including without limitation Limagrain and Arista), on the one hand, and Arcadia, on the other hand, proceeded to have numerous discussions and meetings regarding potential areas of business and technical collaboration. Limagrain and Arista are affiliates of Vilmorin under the terms of the NDA Agreement because Vilmorin is a wholly-owned direct or indirect subsidiary of Groupe Limagrain Holding SA (of which Limagrain is a part) and Arista is a joint venture between Limagrain and CSIRO in which Limagrain has a sufficient ownership or equity interest to control or direct the activities of Arista. Further, Arista is also an affiliate of Vilmorin because it

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is under common control with Vilmorin, namely because both Arista and Vilmorin, indirectly or indirectly, are controlled by Limagrain and/or Groupe Limagrain.

- 50. On March 19, 2010, there was a meeting between representatives of Arcadia and representatives of one or more Defendants, including without limitation Roger Salameh and Dr. Ann Slade for Arcadia, and Georges Freyssinet of Limagrain, where Arcadia made disclosures to Defendants regarding the Arcadia Invention. The information disclosed by Arcadia at that meeting was encompassed and protected by the NDA Agreement.
- 51. On June 11, 2010, there was a meeting between representatives of Arcadia and representatives of one or more Defendants, including without limitation, Elisabeth Chanliaud, and Roger Salameh, Eric Rey, and Victor Knauf of Arcadia, where Arcadia made disclosures to Defendants regarding the Arcadia Invention. The information disclosed by Arcadia at that meeting was encompassed and protected by the NDA Agreement.
- 52. On September 23, 2010, there was a meeting between representatives of Arcadia and representatives of one or more Defendants, including without limitation, Elisabeth Chanliaud, and Roger Salameh and Eric Rey of Arcadia, where Arcadia made disclosures to Defendants regarding the Arcadia Invention. The information disclosed by Arcadia at that meeting was encompassed and protected by the NDA Agreement.
- 53. Following the meeting on September 23, 2010, on September 29, 2010 Arcadia transferred to Defendants by email a slide presentation detailing the Arcadia Invention. The information disclosed by Arcadia in that slide presentation was encompassed and protected by the NDA Agreement.
- 54. The above disclosures made by Arcadia to affiliates of Vilmorin provided Vilmorin and its affiliates with detailed information on the Arcadia Invention.

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- 55. Under the NDA Agreement, that disclosed information could only be used by Vilmorin and its affiliates for the "Purpose," as defined in the NDA Agreement, namely the business and technical discussions between Arcadia and Defendants.
- 56. In breach of the NDA Agreement and applicable common and statutory law,

  Vilmorin and its affiliates instead misappropriated the Arcadia Invention for their own improper benefit.

#### **The Arista Patent Applications**

- 57. On November 2, 2012, in violation of the NDA Agreement and its other obligations to Arcadia, Defendant Arista, an affiliate of Vilmorin and Limagrain, filed the '177 Application, which issued as the '722 Patent on June 7, 2016. The '722 Patent is attached as **Exhibit C**. On November 4, 2011, in violation of the NDA Agreement and its other obligations to Arcadia, the inventors, including an inventor employed by an affiliate of the Defendants, filed the '884 Application, which was assigned to Arista and which issued as the '533 Patent on June 23, 2015. The '533 Patent is attached as **Exhibit D**. On August 6, 2013, in violation of the NDA Agreement and its other obligations to Arcadia, Defendant Arista, an affiliate of Vilmorin and Limagrain, filed the '456 Application, which issued as the '413 Patent on March 7, 2017. The '413 Patent is attached as **Exhibit E**.
- 58. The '177 Application, the '884 Application, and the '456 Application (collectively, the "Arista Patent Applications") claim the Arcadia Invention (or aspects thereof), incorrectly list as inventors persons associated with Defendants, and fail to list as inventors any of the Arcadia Scientists.
- 59. With the filing of the Arista Patent Applications, Arista and the other Defendants formally sought to obtain patent rights in the United States to the Arcadia Invention (or aspects

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thereof), and thereby claim sole ownership of that invention (or aspects thereof) and the right to exclude others, including Arcadia, from practicing that invention.

- 60. The Arista Patents claim technologies that were first conceived and reduced to practice by Arcadia, that Defendants did not possess independently, and that Defendants derived from disclosures by Arcadia to Defendants encompassed by the protections of the NDA Agreement.
- 61. The '177 Application did not publish until May 9, 2013. Prior to publication of the '177 Application, Arcadia had no notice of that application or that Defendants were seeking to obtain patent rights on the Arcadia Invention, and thereby claim sole ownership of that invention and the right to exclude others, including Arcadia, from practicing that invention.
- 62. The '177 Application issued as the '722 Patent on June 7, 2016. Defendants allowed the '722 Patent to issue with an incorrect listing of inventors, namely inventors associated with Defendants, while incorrectly failing to list the Arcadia Scientists who are at least joint if not sole inventors of the inventions claimed in the '722 Patent.
- 63. By no earlier than the issuance of the '722 Patent, Defendants accrued their improper misappropriation and conversion of the Arcadia Scientists' inventive contributions to the inventions claimed in the '722 Patent.
- 64. Claim 1 of the '722 Patent, from which Claims 2 and 3 of that patent depend, claims the following:
  - 1. A process for producing a milled product, comprising the steps of (i) obtaining wheat grain (*Triticum aestivum*) comprising an embryo and starch, wherein the embryo comprises two identical null alleles of an SBEIIa-A gene, two identical null alleles of an SBEIIa-B gene and two identical null alleles of an SBEIIa-D gene, wherein either the two identical null alleles of the SBEIIa-A gene, or of the SBEIIa-B gene or of the SBEIIa-D gene are point mutations, wherein SBEIIa protein is undetectable in the wheat grain, and wherein

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- (a) the starch comprises amylose such that the grain has an amylase<sup>1</sup> content of between 50% and 90% (w/w) as a proportion of the extractable starch of the grain; and
- (b) the wheat grain has a germination rate of about 70% to about 100% relative to the germination rate of a wild-type wheat grain, and
- (ii) milling the grain, thereby producing the milled product.
- 65. The invention claimed in Claim 1 of the '722 Patent, and the inventions claimed in dependent Claims 2 and 3 of that patent, are the Arcadia Invention and were first conceived and reduced to practice by the Arcadia Scientists and was communicated to Defendants under the protections of the NDA Agreement.
- 66. The '884 Application published May 10, 2012. Prior to publication of the '884 Application, Arcadia had no notice of that application or that Defendants were seeking to obtain patent rights on the Arcadia Invention, and thereby claim sole ownership of that invention and the right to exclude others, including Arcadia, from practicing that invention.
- 67. The '884 Application issued as the '533 Patent on June 23, 2015. Defendants allowed the '533 Patent to issue with an incorrect listing of inventors, namely inventors associated with Defendants, while incorrectly failing to list the Arcadia Scientists who are at least joint inventors of the inventions claimed in the '533 Patent.
- 68. By no earlier than the issuance of the '533 Patent, Defendants accrued their improper misappropriation and conversion of the Arcadia Scientists' inventive contributions to the inventions claimed in the '533 Patent.
- 69. Claim 1 of the '533 Patent, from which Claims 2-10, 12-22, and 24-30 of that patent depend, claims the following:

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<sup>&</sup>lt;sup>1</sup> The rendering of the word "amylase" in Claim 1 of the '722 Patent represents a typographical error in the patent. The word should be "amylose."

- 1. Wheat grain (*Triticum aestivum*) comprising an embryo, an endosperm, starch and a reduced level or activity of total SBEII protein, wherein the embryo comprises a loss of function mutation in alleles of endogenous genes of SBEIIa-A, SBEIIa-B, SBEIIa-D, SBEIIb-A, SBEIIb-B or SBEIIb-D, such that the level or activity of total SBEII protein in the grain is between 2% and 30% of the level or activity of total SBEII protein in a wild-type wheat grain, wherein
- i) said alleles include 2, 4 or 6 SBEIIb alleles which are null alleles and 5 or 6 SBEIIa alleles which each comprise a loss of function mutation, wherein at least one of the 5 or 6 SBEIIa alleles which comprises a loss of function mutation comprises a loss of function point mutation;
- ii) the grain has a germination rate of between about 70% and about 100% relative to the germination rate of a wild-type grain, and
- iii) the starch of the grain has an amylose content of at least 50% (w/w) as determined by an iodometric method.
- 70. Claim 11 of the '533 Patent, from which Claim 23 of that patent depends, claims the following:
  - 11. A wheat plant (*Triticum aestivum*) which produces grain, the grain comprising an embryo, an endosperm, starch and a reduced level or activity of total SBEII protein, wherein the embryo comprises a loss of function mutation in alleles of endogenous genes of SBEIIa-A, SBEIIa-B, SBEIIa-D, SBEIIb-B or SBEIIb-D, such that the level or activity of total SBEII protein in the grain is between 2% and 30% of the level or activity of total SBEII protein in a wild-type wheat grain, wherein
  - i) said alleles include 2, 4 or 6 SBEIIb alleles which are null alleles and 5 or 6 SBEIIa alleles which each comprise a loss of function mutation, wherein at least one of the 5 or 6 SBEIIa alleles which comprises a loss of function mutation comprises a loss of function point mutation;
  - ii) the grain has a germination rate of between about 70% and about 100% relative to the germination rate of a wild-type grain;
  - iii) the starch of the grain has an amylose content of at least 50% 1 w w) as determined by an iodometric method, and
  - iv) the wheat plant is male and female fertile.
- 71. The invention claimed in Claims 1 and 11 of the '533 Patent, and the inventions claimed in dependent Claims 2-10 and 12-30 of that patent, incorporate subject matter of the

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Arcadia Invention that was first conceived and reduced to practice by the-Arcadia Scientists and that was communicated to Defendants under the protections of the NDA Agreement.

- 72. The '456 Application published February 13, 2014. Prior to publication of the '456 Application, Arcadia had no notice of that United States patent application or that Defendants were seeking to obtain patent rights in the United States on the Arcadia Invention, and thereby claim sole ownership of that invention and the right to exclude others, including Arcadia, from practicing that invention.
- 73. The '456 Application issued as the '413 Patent on March 7, 2017. Defendants allowed the '413 Patent to issue with an incorrect listing inventors, namely inventors associated with Defendants, while incorrectly failing to list the Arcadia Scientists who are at least joint inventors of the inventions claimed in the '413 Patent.
- 74. By no earlier than the issuance of the '413 Patent, Defendants accrued their improper misappropriation and conversion of the Arcadia Scientists' inventive contributions to the inventions claimed in the '413 Patent.
- 75. Claim 1 of the '413 Patent, from which Claims 2-7 and 11-15 of that patent depend, claims the following:
  - 1. A process for producing a food ingredient or a drink ingredient comprising a step of processing wheat grain, wherein the wheat grain comprises an embryo, an endosperm, starch and a reduced level or activity of total SBEII protein, wherein the embryo comprises a loss of function mutation in alleles of endogenous genes of SBEIIa-A, SBEIIa-B, and SBEIIa-D, such that the level or activity of total SBEII protein in the grain is 2% to 30% of the level or activity of total SBEII protein in a wild-type wheat grain, wherein
  - i) said alleles include 5 or 6 SBEIIa alleles which each comprise a loss of function mutation, wherein at least one of the 5 or 6 SBEIIa alleles which comprise a loss of function mutation comprises a loss of function point mutation,
  - ii) the wheat grain has a germination rate of between about 70% and about 100% relative to the germination rate of a wild-type grain, and

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- iii) the starch of the wheat grain has an amylose content of at least 60% (w/w) as determined by an iodometric method, thereby producing the food or drink ingredient.
- 76. Claim 8 of the '413 Patent, from which Claims 9, 10, and 16-20 of that patent depend, claims the following:
  - 8. A food ingredient comprising wheat flour, wholemeal or processed wheat grain, wherein the processed wheat grain is kibbled grain, cracked grain, parboiled grain, rolled grain, pearled grain, milled grain or ground grain, wherein the wheat flour, wholemeal and processed wheat grain comprise starch and wherein the starch of the wheat flour, wholemeal or processed grain has an amylose content of at least 50% (w/w) as determined by an iodometric method, and

wherein the food ingredient comprising the wheat flour, wholemeal or processed wheat grain comprises an embryo, an endosperm, starch and a reduced level or activity of total SBEII protein, wherein the embryo comprises a loss of function mutation in alleles of endogenous genes of SBEIIa-A, SBEIIa-B, and SBEIIa-D, such that the level or activity of total SBEII protein in the grain is 2% to 30% of the level or activity of total SBEII protein in a wild-type wheat grain, wherein

- i) said alleles include 5 or 6 SBEIIa alleles which each comprise a loss of function mutation, wherein at least one of the 5 or 6 SBEIIa alleles which comprise a loss of function mutation comprises a loss of function point mutation,
- ii) the wheat grain has a germination rate of between about 70% and about 100% relative to the germination rate of a wild-type grain, and
- iii) the starch of the wheat grain has an amylose content of at least 60% (w/w) as determined by an iodometric method.
- 77. The invention claimed in Claims 1 and 8 of the '413 Patent, and the inventions claimed in dependent Claims 2-7 and 9-20 of that patent, incorporate subject matter of the Arcadia Invention that was first conceived and reduced to practice by the Arcadia Scientists and that was communicated to Defendants under the protections of the NDA Agreement.
- 78. Arista filed and/or prosecuted the Arista Patent Applications, obtained issuance of the Arista Patents and engaged in the other improper conduct discussed herein at the direction of Vilmorin and/or Limagrain. Arista as an affiliate of Vilmorin and Limagrain, in that Vilmorin and/or Limagrain's direct or indirect equity interest in Arista allows them to direct and/or control

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the activities of Arista, upon information and belief, including the procurement of the Arista Patents.

# The Injuries to Arcadia from Defendants' Improper Conduct

- 79. Defendants' wrongdoing has caused and continues to cause Arcadia monetary injury and irreparable harm.
- 80. Defendants breached their non-use obligations under the NDA Agreement, including without limitation, by no earlier than when the Arista Patent Applications were filed.
- 81. Defendants breached their confidentiality obligations under the NDA Agreement, including without limitation, by no earlier than when the Arista Patent Applications published.
- 82. By no earlier than when the Arista Patents issued, Defendants misappropriated Arcadia's confidential and scientific information embodied in the Arcadia Invention.
- 83. By not earlier than when the Arista Patents issued, Defendants converted Arcadia's property rights in the Arcadia Invention.
- 84. After issuance of the Arista Patents, Defendants have used and continue to use some or all of the Arista Patents to unfairly compete and interfere with Arcadia. Following issuance of the Arista Patents, Defendants have used and continue to use some or all of those patents, which they improperly obtained in violation of Arcadia's rights, to inhibit Arcadia's ability to develop, license, and/or launch commercial products.
- 85. As recently as by letter dated June 30, 2018, Defendants have asserted that Arcadia does not have freedom to operate to continue development work or to pursue commercial transactions because of, among other things, one of more of the Arista Patents.
- 86. Defendants have also publicly promoted and continue to publicly promote their false and deceptive assertion of ownership of the inventions claimed in one or more of the Arista

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Patents to discourage potential business partners from working with Arcadia to develop, license, and/or launch commercial products.

- 87. Defendants have interfered and continue to interfere with Arcadia's commercial relations and prospective business advantage by using the issuance of, among other things, one or more of the Arista Patents to dissuade growers, mills, and/or other development and commercials partners from working with Arcadia. For example, in 2018 a commercial milling company ceased commercial discussions with Arcadia and, in doing so, that commercial milling company indicated that it was directed to do so by Defendants.
- 88. By this conduct, Defendants have injured and tarnished Arcadia's business, reputation, brand, and goodwill, and thereby have undermined and damaged Arcadia's business through improper conduct. Defendants have also caused industry and consumer confusion by representing themselves as the inventors and owners of the inventions claimed in the Arista Patents, when in fact those inventions (or aspects thereof) were first conceived and reduced to practice by the Arcadia Scientists, are owned by Arcadia, and were taken by Defendants in violation of the NDA Agreement.
- 89. Arcadia has lost key commercial opportunities and tens of millions of dollars in revenues due to Defendants' improper conduct.
- 90. Further, since issuance of the Arista Patents, Defendants have used their false and deceptive claim to ownership of the inventions claimed therein to garner commercial relationships for themselves, thereby unjustly enriching themselves based on their improper conduct.
- 91. Arcadia has also suffered irreparable harm for which monetary remedies alone are inadequate. Defendants' conduct has to date deprived Arcadia of the ability to launch

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commercial products, thereby significantly injuring Arcadia's business and Defendants' conduct has cost Arcadia business opportunities that are now difficult if not impossible to recreate.

92. The Defendants will, if not preliminarily and permanently enjoined, continue their wrongful use and possession of Arcadia's Invention, thereby deceiving the public, improperly receiving the benefits of their unlawful and unjustified conduct, and continuing to cause Arcadia immediate and irreparable harm, damage, and injury.

#### **CLAIMS FOR RELIEF**

# COUNT I (CORRECTION OF INVENTORSHIP AND DECLARATORY JUDGMENT FOR CORRECTION OF INVENTORSHIP) (Against Arista)

- 93. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 94. There is an actual and justiciable controversy between Arcadia and Defendants, because Arcadia asserts that Defendants improperly determined to take and to use Confidential Information of Arcadia to file the Arista Patent Applications that led to issuance of the Arista Patents.
- 95. The Arcadia Scientists are the inventors of subject matter claimed in the Arista Patents. Therefore, inventorship of the Arista Patents should be corrected to so state, and Arcadia should therefore be the assignee of the Arista Patents.
  - 96. Defendants contest Arcadia's inventorship claims concerning Arista Patents.
- 97. Whether the Arcadia Scientists are properly the sole inventors of all of the inventions claimed in the Arista Patents or joint inventors of some of those inventions will be determined based on the evidence adduced in this matter. Arcadia presently believes that the Arcadia Scientists are the sole inventors (or, depending on claim interpretation of certain terms

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in Claims 1-3 of the '722 Patent, at least joint inventors) of all of the claimed inventions in the '722 Patent. Arcadia presently believes that the Arcadia Scientists are sole inventors or at least joint inventors of the subject matter claimed in the remaining Arista Patents.

- 98. Defendants' wrongful actions as detailed above have deprived Arcadia of its assignable ownership interest in the Arista Patents and the benefits therefrom.
- 99. Defendants' wrongful actions as detailed above have resulted in erroneous inventorship on the Arista Patents.
- 100. Issuance of certificates of correction on inventorship and declaratory relief will clarify the disputed rights and obligations of the parties under federal law, is in the public interest, and is therefore appropriate to resolve this controversy.
- 101. Arcadia is therefore entitled to a finding pursuant to 35 U.S.C. § 256 and a declaratory judgment pursuant to 18 U.S.C. § 2201 that: (i) the Arcadia Scientists are joint inventors, if not the sole inventors, of the Arista Patents and certificates of correction should issue; (ii) Arcadia is the, or a, proper assignee of the Arista Patents; (iii) the currently-listed inventors are not proper or sole inventors; and (iv) the assignments of the Arista Patents to Arista were unauthorized, improper, and invalid.

# COUNT II (BREACH OF CONTRACT) (Against All Defendants)

- 102. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
  - 103. The NDA Agreement is a valid and enforceable contract between the parties.
  - 104. Arcadia has complied with its obligations under the NDA Agreement.

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- 105. The taking, use and disclosure of Arcadia's Confidential Information, including the Arcadia Invention, by Defendants breached the NDA Agreement.
- 106. The taking, use and disclosure of Arcadia's Confidential Information, including the Arcadia Invention, by Defendants to support and further the launch of Defendants' commercial products breached the NDA Agreement.
- 107. The taking, use and disclosure of Arcadia's Confidential Information, including the Arcadia Invention, by Defendants for their own benefit breached the NDA Agreement.
- 108. The breaches of the NDA Agreement by Defendants have damaged Arcadia, depriving Arcadia of valuable property and economic opportunities, including lost profits and lost reasonable royalties, for which the Defendants are liable to Arcadia.
- 109. The damages caused by these breaches of contract are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

# COUNT III (BREACH OF THE IMPLIED COVENANT OF GOOD FAITH AND FAIR DEALING) (Against All Defendants)

- 110. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 111. Implied in every contract, including the NDA Agreement, is a covenant of good faith and fair dealing. This means that, even though not specifically stated in the contract, it is implied or understood that each party to the contract must act in good faith and deal fairly with the other party in performing or enforcing the terms of the contract. To act in good faith and deal fairly, a party must act in a way that is honest and faithful to the agreed purposes of the contract and consistent with the reasonable expectations of the parties. A party must not act in bad faith,

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dishonestly, or with improper motive to destroy or injure the right of the other party to receive the benefits or reasonable expectations of the contract.

- 112. The actions of Defendants in without limitation: (i) taking and misusing the Arcadia Invention disclosed by Arcadia to Defendants under the NDA Agreement; (ii) prosecuting at least the '177 Application and the '456 Application based on the Arcadia Invention; and (iii) working to commercialize products in violation of Arcadia's rights, were actions in bad faith, engaged in with deception and evasion, and designed to deny Arcadia the benefit of the bargain intended under the NDA Agreement.
- 113. Defendants are therefore liable to Arcadia for the return of its intellectual property and the damages Arcadia has suffered, including damages, lost profits and lost reasonable royalties, as a result of Defendants' wrongful actions.
- 114. The damages caused by this breach of the implied covenant of good faith and fair dealing are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

# COUNT IV (UNFAIR COMPETITION) (Against All Defendants)

- 115. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 116. The aforementioned wrongful acts by Defendants constitute unfair competition and unfair business practices contrary to the common law, because, *inter alia*, Defendants are misrepresenting themselves as the inventors and the owners of the Arcadia Invention, are improperly using the Arcadia Invention in violation of Arcadia's rights, are thereby have injured

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and tarnished Arcadia's business, reputation, brand, and goodwill, and thereby have undermined and damaged Arcadia's business through improper conduct.

- 117. Defendants have also caused industry and consumer confusion by misrepresenting themselves as the inventors and owners of the inventions claimed in the Arista Patents, when in fact those inventions (or aspects thereof) were first conceived and reduced to practice by the Arcadia Scientists, are owned by Arcadia, and were taken by Defendants in violation of the NDA Agreement.
- 118. Defendants are therefore liable to return the Arcadia Invention to Arcadia, disclaim all ownership claims to it, and to pay for the damages suffered by Arcadia from this unfair competition, including the costs of acquiring and developing the intellectual property and damages, lost profits and lost reasonable royalties, as a result of Defendants' wrongful actions, and disgorgement of Defendants' improperly obtained profits, for which damages Defendants are jointly and severally liable to Arcadia.
- 119. The damages caused by this unfair competition are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

# COUNT V (MISAPPROPRIATION OF CONFIDENTIAL INFORMATION) (Against All Defendants)

- 120. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 121. The Arcadia Scientists' conception, experimentation, laboratory work, data, research, and development work with regard to the Arcadia Invention disclosed to Defendants was Confidential Information proprietary to Arcadia.

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- 122. The circumstances of the parties' relationship created an expectation and intention that all such information would be maintained confidential and not be used by Defendants for their own benefit.
- 123. Defendants' use and disclosure of that information through their filing of at least the utility patent applications leading to the '722 Patent and the '413 Patent breached their duty of confidentiality arising out of their relationship with Arcadia.
- 124. Upon information and belief, Defendants knew of the circumstances of origin of the information shared by Arcadia with them, including the Arcadia Invention, and by that knowledge and their relationship with Arcadia, thereby also acquired a duty of confidentiality to Arcadia.
- 125. Defendants use and disclosure of that information breached their duty of confidentiality to Arcadia.
- 126. The use and disclosure of the Arcadia Invention by the Defendants in violation of their duty of confidentiality has damaged Arcadia, including damages, lost profits, and lost reasonable royalties and disgorgement of Defendants' improperly obtained profits, for which damages Defendants are jointly and severally liable to Arcadia.
- 127. The damages caused by this breach of confidentiality are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

# COUNT VI (UNJUST ENRICHMENT) (Against All Defendants)

128. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.

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- 129. When the Arista Patents issued, Defendants received a benefit from Arcadia in their improper taking, possession and use of the Arcadia Invention, which is the property of Arcadia.
- 130. Defendants have provided no compensation or consideration to Arcadia for their improper taking and use of Arcadia's property, including the Arcadia Invention.
- 131. Defendants' retention and profitable exploitation of the Arcadia Invention and benefits therefrom are inequitable.
- 132. Defendants are therefore liable to return Arcadia's property, including the Arcadia Invention, confidential and proprietary information, intellectual property, and for the damages suffered by Arcadia, including the costs of acquiring and developing the intellectual property and damages, lost profits, and lost reasonable royalties, as a result of Defendants' wrongful actions, and disgorgement of Defendants' improperly obtained profits, for which damages Defendants are jointly and severally liable to Arcadia.
- 133. The damages caused by this unjust enrichment are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

# COUNT VII (CONVERSION) (Against All Defendants)

- 134. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 135. Arcadia is the owner of the Arcadia Invention and is actually the proper joint, if not sole, owner of such property and should be an, if not the, assignee of at least the '722 Patent. Arcadia is the owner of the Arcadia Invention and is also at least a proper joint owner and should be an assignee of at least the '413 Patent

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- 136. When at least the '722 Patent and the '413 Patent issued improperly claiming that persons associated with Defendants were the inventors of the inventions claimed therein, and when the '722 Patent and the '413 Patent were assigned to Arista, Defendants converted Arcadia's property.
  - 137. Arcadia has the right to immediate possession of this property.
- 138. Defendants have improperly and without justification interfered with Arcadia's property, and its ownership interest and possession in the Arcadia Invention and at least the '722 Patent and the '413 Patent.
- 139. Arcadia has demanded an end to this interference, a demand that Defendants have refused.
- 140. Defendants' improper conduct has injured Arcadia by seeking to deprive Arcadia of its ownership and rights in the Arcadia Invention and by preventing and usurping Arcadia's ability to take commercial advantage of the Arcadia Invention.
  - 141. Arcadia demands return of its property.
- 142. Defendants' conduct has also resulted in injury to Arcadia, including damages, lost profits and lost reasonable royalties, for which injury Defendants are jointly and severally liable to Arcadia. Defendants should also disgorge their ill gotten profits from their improper conduct.
- 143. The damages caused by this conversion are presently believed to exceed \$10,000,000.00, with the exact amount to be proven at trial.

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# COUNT VIII (TORTIOUS INTERFERENCE) (Against All Defendants)

- 144. Arcadia realleges and incorporates by reference the above allegations as if set forth in full here.
- 145. Defendants have improperly publicly promoted their false and deceptive assertion of ownership of the inventions claimed in one or more of the Arista Patents (or aspects thereof) to discourage potential business partners from working with Arcadia to develop, license, and/or launch commercial products.
- 146. Defendants have interfered with Arcadia's commercial relations and prospective business advantage by using, among other things, one of more of the issued Arista Patents to dissuade growers, mills, and other development and commercials partners from working with Arcadia.
- 147. Defendants engaged in this improper conduct specifically to injure Arcadia and to benefit themselves.
- 148. Arcadia has a reasonable expectation of economic advantage based on the novelty and value of the Arcadia Invention and the NDA Agreement put in place to protect its interests.
- 149. Defendants are intentionally interfering with Arcadia's business relations and prospective economic advantage with third parties.
- 150. This conduct has injured Arcadia by seeking to deprive Arcadia of its ownership and rights in the Arcadia Invention and by preventing and usurping Arcadia's ability to take commercial advantage of the Arcadia Invention.
  - 151. There was no justification for Defendants' conduct.

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152. This conduct has resulted in injury to Arcadia, including damages, lost profits and

lost reasonable royalties, and Defendants should disgorge their ill-gotten profits, for which injury

Defendants are jointly and severally liable to Arcadia.

153. The damages caused by this tortious interference are presently believed to exceed

\$10,000,000.00, with the exact amount to be proven at trial.

WHEREFORE, Arcadia seeks judgment as follows:

(1) On Count I, pursuant to 18 U.S.C. § 2201 and 35 U.S.C. § 256, declaring and

adjudging that the Arcadia Scientists are the true and sole inventors (or at least joint inventors) of

the Arista Patents and that Arcadia is the, or a, proper assignee of the Arista Patents, issuance of

certificates of correction, and finding that the currently-listed inventors are not the sole inventors

and that the assignments of the Arista Patents to Arista are unauthorized, improper and invalid;

(2) On Counts II through VIII, awarding judgment to Arcadia for all monetary and

equitable remedies available under applicable law for Defendants' improper conduct; and

(3) Awarding such other and further relief as the Court deems just and proper.

Dated: September 4, 2018

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